

## CLAIMS

**1. A variable color filter for linear fluorescent lamps comprising:**

**a color tube supporting a plurality of colored filter strips each disposed longitudinally along said tube and in circumferentially adjacent relationship to each other, said color tube supported for rotation about a lamp tube in said housing;**

**a motor for rotating said color tube;**

**a mask defining an aperture for limiting emission of light filtered by only a circumferential portion of said color tube; and**

**control means operatively connected to said motor for selectively positioning said tube in relation to said aperture thereby to achieve a desired coloring of light emitted by the lamp tube.**

**2. The variable filter of Claim 1 wherein said mask is interposed between said color tube and the said lamp tube.**

**3. The variable filter of Claim 1 wherein said mask is positioned exteriorly to said color tube.**

**4. The variable color filter of Claim 1 wherein said filter strips are of even width with each other.**

**5. The variable color filter of Claim 1 wherein said filter strips are each of a single color.**

6. The variable color filter of Claim 1 wherein one or more of said filter strips are of varying color density across a strip width.
7. The variable color filter of Claim 1 wherein at least one of said strips is substantially opaque to transmission of light.
8. The variable color filter of Claim 1 wherein at least one of said strips is substantially clear.
9. The variable color filter of Claim 1 wherein said filter strips comprise a substantially opaque strip, a substantially clear strip and one or more colored strips.
10. The variable color filter of Claim 9 wherein said one or more colored strips comprise a yellow filter strip and a blue filter strip.
11. The variable color filter of Claim 10 wherein said yellow filter strips are of graduated density.
12. The variable color filter of Claim 11 wherein said yellow filter strip and said blue filter strip are each of increasing density towards said substantially opaque strip.
13. The variable color filter of Claim 1 wherein said filter strips are affixed to said tube with an adhesive.
14. The variable color filter of Claim 1 wherein said filter strips are secured to said tube by a shrunk wrapper.
15. The variable color filter of Claim 1 wherein said filter strips are gel filter strips.

16. The variable color filter of Claim 1 wherein said filter strips are dichroic filter strips.
17. The variable filter of Claim 1 wherein said filter strips are printed onto a surface of said tube.
18. The variable filter of Claim further comprising an ultra violet filter interposed between said filter strips and the said lamp in said tube.
19. A variable color filter for linear fluorescent lamps comprising:
  - a color tube supported for rotation about a lamp tube;
  - a motor for rotating said color tube;
  - a plurality of colored filter strips each disposed longitudinally along said tube and in circumferentially adjacent relationship to each other, said filter strips comprising a substantially opaque strip, a substantially clear strip, a yellow strip and a blue strip;
  - a mask defining an aperture for limiting light emission to light filtered by only a circumferential portion of said color tube and colored by one or more of said strips on said circumferential portion; and
  - control means operatively connected to said motor for selectively positioning said color tube in relation to said aperture, thereby to achieve a desired coloring of light emitted through said aperture by said lamp.
20. The variable color filter of Claim 20 wherein said control means are operative for rotating said color tube from said clear to said opaque and then to said clear at a relatively slow rate not readily perceptible to a human observer thereby to achieve slow

changes in illumination suggestive of nightfall and daybreak between color tube positions corresponding to uncolored illumination and darkness.

21. A method for simulating daybreak and nightfall ambient illumination comprising the steps of providing a linear fluorescent lamp including a lamp tube, providing a lamp aperture for emitting light from said lamp tube into an illuminated environment, and filtering light emitted through said aperture through changing filter media of color suggestive of nightfall and daybreak respectively between blocked and unfiltered conditions of the emitted light.

22. The method of Claim 21 further comprising an electronic dimming control connected for controlling light output of said lamp tube in coordination with said changing filter media.

23. The method of claim 22 wherein said step of filtering light comprises selectively rotating a plurality of light filters including a substantially clear filter, a substantially opaque filter, a yellow filter and a blue filter,

24. The method of claim 23 wherein said yellow filter and said blue filter are each interposed between said clear filter and said opaque filter.

25. The method of Claim 24 wherein said yellow filter and said blue filter are each of increasing density from said clear filter towards said substantially opaque filter.

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26. A mechanically dimmable linear fluorescent lamp comprising:

a light fixture including a fluorescent lamp tube;

a dimming tube supported for rotation about said lamp tube, said dimming tube having a clear circumferential area and an opaque circumferential area; and

a mask defining an aperture for limiting emission of light filtered by only a circumferential portion of said dimming tube.

27. The continuously dimmable linear fluorescent lamp of Claim 26 further comprising a motor for rotating said dimming tube relative to said mask.

28. The continuously dimmable linear fluorescent lamp of Claim 27 further comprising control means operatively connected to said motor for selectively positioning said dimming tube in relation to said aperture thereby to achieve a desired level of illumination by the lamp.

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